Molnupiravir

November 5, 2021

In news- The United Kingdom became the first country in the world to approve Merck's oral COVID-19 antiviral pill.

About the pill-

- It was jointly d**eveloped by U.S.-based Merck & Co Inc and Ridgeback Biotherapeutics.**
- Britain's Medicines and Healthcare products Regulatory Agency (MHRA) recommended the drug, for use in people with mild to moderate COVID-19.
- It will be **administered as soon as possible following a positive COVID-19 test and within five days of the onset of symptoms**.
- The green light is the **first for an oral antiviral treatment for COVID-19 and the first for a COVID-19 drug that will be administered widely in the community.**
- The pill, which **will be branded as Lagevrio in Britain,** is designed to introduce errors into the genetic code of the coronavirus that causes COVID-19 and is taken twice a day for five days.
- In clinical trials the pill, **originally developed to treat flu, cut the risk of hospitalisation or death by about half.**
- Drugs in the same class as molnupiravir have been linked to birth defects in animal studies.
- It **targets an enzyme that the virus uses to make copies of itself,** introducing errors into its genetic code.
- It could **halve the chances of dying or being hospitalised** for those most at risk of developing severe COVID-19 when given early in the illness.

How does it work?

- **Molnupiravir works by introducing errors in the mechanism,** involving RNA replication, by which the virus

makes copies of itself once it has infected an individual.

- **By tricking the virus into incorporating its material into copies of its RNA**, the drug causes mutations to accumulate, eventually rendering it unable to reproduce.
- By keeping virus levels low in the body, the pill is thus able to reduce the severity of the disease.